

surface; a lower surface; and at least one side extending between the upper surface and the lower surface forming the card-thin housing, the side having visibly perceptible information thereon; and communication circuitry within the housing configured to at least one of communicate and receive electronic signals. A method of forming a card includes: providing a substrate having: an upper surface; a lower surface, and the upper and lower surfaces individually having a length and a width; and a plurality of sides individually having a thickness less than the lengths and the widths of the surfaces; and encoding visibly perceptible information on at least one of the sides.--

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In the Claims

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50. A wireless communication device comprising:  
a housing including an upper surface, a lower surface, and at least one side intermediate the upper surface and the lower surface and having a dimension less than smallest dimensions of the upper surface and the lower surface, and the at least one side surface having visibly perceptible indicia thereon; and

communication circuitry within the housing and the communication circuitry being configured to communicate wireless signals.

✓ 51. The device according to claim 50 wherein the housing comprises an encapsulant which contacts the communication circuitry.

52. The device according to claim 50 wherein the at least one side surface has a dimension less than about 100 mils.

✓ 53. The device according to claim 50 wherein the communication circuitry comprises radio frequency identification device circuitry.

54. A wireless communication device comprising:  
a substrate having a support surface defined by at least one perimetral edge;  
communication circuitry elevationally over the support surface of the substrate and configured to communicate wireless signals; and

an encapsulant elevationally over the support surface and configured to encapsulate at least portions of the support surface of the substrate and the communication circuitry, and wherein the encapsulant and the substrate respectively define an upper surface and a lower surface and have a thickness less than a smallest dimension of the at least one perimetral edge, and the encapsulant includes visibly perceptible indicia intermediate the upper surface and the lower surface.

55. The device according to claim 54 wherein the support surface comprises a surface substantially in the shape of a rectangle.

56. The device according to claim 54 wherein the encapsulant contacts at least portions of the support surface and the communication circuitry.

57. The device according to claim 54 wherein the encapsulant and the substrate have a thickness less than about 100 mils.

58. The device according to claim 54 wherein the communication circuitry comprises radio frequency identification device circuitry.

✓ 59. A wireless communication device comprising:  
communication circuitry configured to communicate wireless signals; and  
an encapsulant configured to encapsulate and contact at least a portion of the  
communication circuitry, wherein the encapsulant defines at least one side surface and the  
at least one side surface has visibly perceptible information thereon.

✓ 60. The device according to claim 59 wherein the encapsulant has a thickness  
less than about 100 mils.

✓ 61. The device according to claim 59 wherein the communication circuitry  
comprises radio frequency identification device circuitry.

62. A radio frequency identification device comprising:  
a housing including an upper surface and a lower surface which define a housing  
thickness of less than about 100 mils intermediate the lower surface and the upper  
surface, and the housing has visibly perceptible indicia thereon intermediate the upper  
surface and the lower surface; and  
communication circuitry within the housing and configured to communicate wireless  
signals.

63. The device according to claim 62 wherein the housing comprises an encapsulant which contacts at least portions of the support surface and the communication circuitry.

64. The device according to claim 62 further comprising an antenna within the housing and coupled with the communication circuitry.

65. A radio frequency identification device comprising:  
a substrate having a support surface;  
radio frequency identification device circuitry elevationally over the support surface and configured to communicate wireless signals;  
a power source elevationally over the support surface and coupled with the radio frequency identification device circuitry;  
an antenna elevationally over the support surface and coupled with the radio frequency identification device circuitry; and  
an encapsulant contacting at least portions of the support surface, the radio frequency identification device circuitry, the power source and the antenna, wherein the encapsulant and the substrate form a housing having an upper surface and a lower surface interconnected by at least one side surface, and the at least one side surface has a dimension less than smallest dimensions of the upper and lower surfaces, and the at least one side surface includes visibly perceptible indicia.

66. A method of forming a wireless communication device comprising:  
providing communication circuitry configured to communicate wireless signals;  
providing a housing including an upper surface, a lower surface and at least one side surface about the communication circuitry, the at least one side surface has a dimension less than smallest dimensions of the upper surface and the lower surface; and  
providing visibly perceptible indicia on the at least one side surface.

67. The method according to claim 66 wherein the providing the housing comprises encapsulating at least a portion of the communication circuitry with an encapsulant.

68. The method according to claim 67 wherein the encapsulating comprises contacting at least the encapsulated portion of the communication circuitry with the encapsulant.

69. The method according to claim 66 wherein the at least one side surface has a dimension less than about 100 mils.

70. The method according to claim 66 wherein the providing communication circuitry comprises providing radio frequency identification device circuitry.



71. A method of forming a wireless communication device comprising:  
providing a substrate having a support surface defined by at least one perimetral edge;  
providing communication circuitry elevationally over the support surface of the substrate and configured to communicate wireless signals;  
encapsulating at least portions of the support surface of the substrate and the communication circuitry using an encapsulant, the encapsulant and the substrate respectively define an upper surface and a lower surface and have a thickness less than a smallest dimension of the at least one perimetral edge; and  
providing visibly perceptible indicia on the encapsulant intermediate the upper surface and the lower surface.

72. The method according to claim 71 wherein the providing the substrate comprises providing the substrate having a substantially rectangular shape.

73. The method according to claim 71 wherein the encapsulating comprises contacting at least the encapsulated portions of the support surface of the substrate and the communication circuitry with the encapsulant.

74. The method according to claim 71 wherein the encapsulant and the substrate have a thickness less than about 100 mils.

75. The method according to claim 71 wherein the providing communication circuitry comprises providing radio frequency identification device circuitry.

vej 76. A method of forming a wireless communication device comprising:  
providing communication circuitry configured to communicate wireless signals;  
encapsulating at least a portion of the communication circuitry with an encapsulant which contacts at least the encapsulated portion of the communication circuitry, the encapsulant forming at least one side surface; and  
providing visibly perceptible indicia upon the at least one side surface of the encapsulant.

vej 77. The method according to claim 76 wherein the at least one side surface of the encapsulant has a dimension less than about 100 mils.

vej 78. The method according to claim 76 wherein the providing communication circuitry comprises providing radio frequency identification device circuitry.

79. A method of forming a radio frequency identification device comprising:  
providing radio frequency identification device circuitry configured to communicate wireless signals;  
providing a housing including an upper surface, a lower surface, and at least one side surface about the communication circuitry, the at least one side surface having a dimension less than about 100 mils; and  
providing visibly perceptible indicia on the at least one side surface.

80. The method according to claim 79 wherein the providing the housing comprises providing an encapsulant over at least a portion of a support surface of a substrate.

81. The method according to claim 80 wherein the encapsulant contacts at least portions of the support surface and the radio frequency identification device circuitry.

82. A method of forming a radio frequency identification device comprising:  
providing radio frequency identification device circuitry configured to communicate wireless signals;  
coupling a power source with the radio frequency identification device circuitry;  
coupling an antenna with the radio frequency identification device circuitry;

providing a housing including an upper surface, a lower surface and at least one side surface about at least portions of the radio frequency identification device circuitry, the power source and the antenna, the at least one side surface having a dimension less than smallest dimensions of the upper surface and the lower surface; and

AC providing visibly perceptible indicia on the at least one side surface.

Sub 83. (New) The device according to claim 50 wherein the communication circuitry is configured to implement backscatter communications.

84. (New) The device according to claim 50 further comprising a battery coupled with the communication circuitry.

85. (New) The device according to claim 54 wherein the communication circuitry is configured to implement backscatter communications.

86. (New) The device according to claim 54 further comprising a battery coupled with the communication circuitry.

87. (New) The device according to claim 59 wherein the communication circuitry is configured to implement backscatter communications.

88. (New) The device according to claim 59 further comprising a battery coupled with the communication circuitry.

89. (New) The device according to claim 62 wherein the communication circuitry is configured to implement backscatter communications.

90. (New) The device according to claim 62 further comprising a battery coupled with the communication circuitry.

91. (New) The method according to claim 66 wherein the providing communication circuitry comprises providing backscatter communication circuitry.

92. (New) The method according to claim 66 further comprising electrically coupling a battery with the communication circuitry.

93. (New) The method according to claim 71 wherein the providing communication circuitry comprises providing backscatter communication circuitry.

94. (New) The method according to claim 71, further comprising electrically coupling a battery with the communication circuitry.

N 95. (New) The method according to claim 76 wherein the providing communication circuitry comprises providing backscatter/communication circuitry.

N 96. (New) The method according to claim 76 further comprising electrically coupling a battery with the communication circuitry.

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N 97. (New) The method according to claim 79 wherein the providing the radio frequency identification device circuitry comprises providing backscatter circuitry.

N 98. (New) The method according to claim 79 further comprising electrically coupling a battery with the radio frequency identification device circuitry.

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